

INTERNATIONAL SEARCH REPORT

PCT/GB 02/02476

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B60G11/12 B60G11/44 F16F1/26 F16F1/368 B60G17/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 B60G F16F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 1 902 394 A (ADOLPHE CARTERET PAUL) 21 March 1933 (1933-03-21) figures 2,4 ---	1,12,13
A	---	8-10,18, 19
Y	US 2 973 196 A (SCHEUBLEIN JR WILLIAM A ET AL) 28 February 1961 (1961-02-28) figures 1,3,4 ---	1-5, 11-16
Y	US 3 693 964 A (MCGEE DONALD J) 26 September 1972 (1972-09-26) figures 3,5 ---	1-5, 11-16 -/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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Date of the actual completion of the international search

4 February 2003

Date of mailing of the international search report

12/02/2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 010, no. 246 (M-510), 23 August 1986 (1986-08-23) & JP 61 075005 A (NHK SPRING CO LTD), 17 April 1986 (1986-04-17) abstract	1-5, 11-16
A		6
Y	US 1 534 533 A (HENRY LUTMAN CHARLES) 21 April 1925 (1925-04-21) figures 1-4	1-3, 11-15
A		6
Y	US 2 192 391 A (WEBER THEODORE R) 5 March 1940 (1940-03-05) page 1, right-hand column, line 9 - line 24; figures	1-3, 11-15
A	US 4 687 224 A (SELZER ROBERT J) 18 August 1987 (1987-08-18) abstract; figure	1,8-10, 12,13, 18,19
A	GB 1 418 313 A (DUNLOP LTD) 17 December 1975 (1975-12-17) page 2, line 49 - line 61; figures 1,4	1-3, 13-15
A	US 6 361 026 B2 (REAST JOHN BOLLAND) 26 March 2002 (2002-03-26) figures 4A,4B,5A,5B	1-3,6,7, 12-15,17
A	US 5 507 516 A (REAST JOHN B) 16 April 1996 (1996-04-16) figures 1A,1B,5A,5B,6A,6B,8	1,6,7, 12,13,17

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PCT/GB 02/02476

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 1902394	A	21-03-1933	GB BE DE FR FR GB	352493 A 374351 A 527437 C 38611 E 700759 A 352495 A		06-07-1931 24-06-1931 06-03-1931 16-07-1931
US 2973196	A	28-02-1961	NONE			
US 3693964	A	26-09-1972	NONE			
JP 61075005	A	17-04-1986	JP	1829863 C		15-03-1994
US 1534533	A	21-04-1925	FR	581314 A		26-11-1924
US 2192391	A	05-03-1940	NONE			
US 4687224	A	18-08-1987	CA	1255336 A1		06-06-1989
GB 1418313	A	17-12-1975	AU	5308173 A		12-09-1974
US 6361026	B2	16-08-2001	US AU DE DE EP ES WO	2001013676 A1 1901595 A 69518068 D1 69518068 T2 0752934 A1 2149352 T3 9526887 A1		16-08-2001 23-10-1995 24-08-2000 22-03-2001 15-01-1997 01-11-2000 12-10-1995
US 5507516	A	16-04-1996	AT AU DE DE EP ES WO	165286 T 1908792 A 69225225 D1 69225225 T2 0587663 A1 2114939 T3 9222438 A1		15-05-1998 12-01-1993 28-05-1998 07-01-1999 23-03-1994 16-06-1998 23-12-1992